



## Tapered Amplifiers

Tapered amplifier (TA) diodes have a flared geometry to maintain a single transverse mode but boost the power to the Watt level. They are typically operated in a master oscillator power amplifier (MOPA) configuration.

Both facets are coated with a high-quality AR coating.

WL is the gain maximum of the amplifier. WLmin and WLmax specify the typical width of the gain spectrum. P is the maximum power, max I the max. required amplifier current.

TOPTICA offers both single TA chips and customized tapered amplifier systems. The diodes are mounted on an optimized carrier which provides access to both facets and removes the heat efficiently. Every single chip delivered by TOPTICA is tested and comes with an individual data sheet.

| WL<br>nm | WLmin<br>nm | WLmax<br>nm | P<br>mW | max I<br>mA | PO#             | Stock | Remark  |
|----------|-------------|-------------|---------|-------------|-----------------|-------|---|
| 670      | 660         | 675         | 500     | 1100        | #TA-0670-0500-8 | u.r.  | 200mW outside 668-671nm; for TA100 please inquire           |
| 675      | 665         | 678         | 300     | 1200        | #TA-0675-0500-1 | 2     | 200mW <669 >676nm   |
| 735      | 725         | 735         | 500     | 1500        | #TA-0735-0500-5 | > 3   | System Only   |
| 765      | 760         | 775         | 2000    | 3000        | #TA-0765-2000-1 | > 3   | 1.5W outside 765nm-770nm                                    |
| 780      | 770         | 796         | 2000    | 3000        | #TA-0780-2000-6 | 1     | 1500mW outside 778nm-793nm                                  |
| 780      | 765         | 795         | 3000    | 4000        | #TA-0780-3000-2 | 1     | Outside 775nm-785nm: 2W; >790nm: 1.5W; M <sup>2</sup> < 2.0 |
| 790      | 780         | 800         | 3500    | 4000        | #TA-0790-2000-1 | 2     | 3W outside 790-795nm, 2.5W <785nm; M <sup>2</sup> <2.0      |
| 795      | 785         | 805         | 3000    | 4500        | #TA-0795-3000-1 | 3     | 2.5W below 790nm; 2.0W above 800nm, M <sup>2</sup> < 2      |
| 808      | 805         | 820         | 2500    | 3500        | #TA-0808-2000-1 | 2     | 2W >815nm, broader tuning possible, inquire                 |
| 830      | 820         | 837         | 500     | 1900        | #TA-0830-0500-4 | 1     |   |
| 850      | 825         | 860         | 750     | 2500        | #TA-0850-0750-4 | 1     |   |
| 850      | 845         | 860         | 2000    | 3000        | #TA-0850-2000-1 | u.r.  | 1500mW outside 847nm - 858nm, min. 20 mW seed               |
| 860      | 850         | 870         | 3500    | 5000        | #TA-0860-3000-1 | u.r.  | 3W outside 855nm-865nm; M <sup>2</sup> < 2                  |
| 870      | 865         | 880         | 1500    | 3000        | #TA-0870-1500-1 | 3     |   |
| 890      | 875         | 900         | 1500    | 3000        | #TA-0890-1500-1 | 2     | outside 880nm-900nm: 1000mW                                 |
| 915      | 875         | 920         | 1500    | 3000        | #TA-0915-1500-4 | > 3   | 1W outside 880-915, M <sup>2</sup> < 2                      |
| 915      | 905         | 930         | 2500    | 4000        | #TA-0915-1500-1 | 1     | 2W outside 915nm-925nm                                      |
| 930      | 915         | 945         | 1500    | 3000        | #TA-0930-1500-1 | 1     | 1000mW above 940nm; M <sup>2</sup> < 2.2                    |
| 950      | 940         | 960         | 1500    | 2900        | #TA-0950-1500-1 | 3     |   |
| 970      | 950         | 985         | 1500    | 2900        | #TA-0970-1500-1 | 3     | 1000mW outside 965-980                                      |
| 970      | 955         | 990         | 3000    | 5000        | #TA-0970-3000-1 | 2     | 2000mW outside 970-980nm                                    |
| 1010     | 995         | 1030        | 2000    | 5000        | #TA-1010-1500-1 | 1     | 1.5W outside 1005-1020nm; 1.2W outside 1000-1025nm          |
| 1060     | 1040        | 1075        | 2000    | 4000        | #TA-1060-2000-1 | 1     | 500mW for >1070nm   |

u.r. : upon request



## Tapered Amplifiers

| WL<br>nm | WLmin<br>nm | WLmax<br>nm | P<br>mW | max I<br>mA | PO#             | Stock | Remark  |
|----------|-------------|-------------|---------|-------------|-----------------|-------|---|
| 1100     | 1094        | 1115        | 1500    | 4000        | #TA-1100-1500-1 | > 3   | 1000mW above 1106nm; System only                            |
| 1120     | 1115        | 1130        | 2000    | 6000        | #TA-1120-4000-1 | > 3   |   |
| 1135     | 1120        | 1145        | 1000    | 7000        | #TA-1135-1000-1 | > 3   | System only!  |
| 1150     | 1120        | 1155        | 500     | 5000        | #TA-1150-0500-1 | 1     | System only!  |
| 1170     | 1150        | 1200        | 1500    | 7000        | #TA-1170-1500-2 | 3     | System only! <1170>1185nm:1W, <1165nm>1195nm:0.7W           |
| 1200     | 1182        | 1223        | 1500    | 7000        | #TA-1200-1500-1 | u.r.  | System only! 1W outside 1190nm-1215nm                       |
| 1250     | 1225        | 1275        | 1500    | 7000        | #TA-1250-1500-1 | u.r.  | System only! Please inquire about max. power.               |
| 1280     | 1270        | 1320        | 1500    | 7000        | #TA-1280-1500-1 | 1     | System only! 1W outside 1277nm-1315nm, M <sup>2</sup> < 1.7 |
| 1340     | 1315        | 1357        | 1500    | 7000        | #TA-1340-1500-1 | 1     | 1000mW outside 1327nm-1345nm; System only                   |
| 1480     | 1465        | 1495        | 300     | 3500        | #TA-1480-0500-1 | > 3   |   |